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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 10/092,616 | 03/08/2002 | Takahiro Naka | Q68810 | 8662 |

7590 02/13/2003

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| EXAMINER |
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TRAN, LY T

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| ART UNIT | PAPER NUMBER |
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2853

DATE MAILED: 02/13/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/092,616

Applicant(s)

NAKA ET AL.

Examiner

Ly T TRAN

Art Unit

2853

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-25 is/are pending in the application.
- 4a) Of the above claim(s) 7-10 and 22-25 is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-7 and 21 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☒ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) Z.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Election/Restrictions

1. Restriction to one of the following inventions is required under 35 U.S.C. 121:
 - I. Claims 1- 7 and 21, drawn to an apparatus of determining an amount of the printing coloring agent, classified in class 347, subclass 7.
 - II. Claims 19-22, drawn to an apparatus and a method for determining a material cost of a printing coloring agent, classified in class 705, subclass 1 or 400.

The inventions are distinct, each from the other because of the following reasons:

Inventions I and II are unrelated. Inventions are unrelated if it can be shown that they are not disclosed as capable of use together and they have different modes of operation, different functions, or different effects (MPEP § 806.04, MPEP § 808.01). In the instant case the different inventions, the invention I drawn to an apparatus of determining an amount of the printing coloring agent and the invention II drawn to an apparatus and a method for determining a material cost of a printing coloring agent

Inventions I and II are unrelated Because these inventions are unrelated for the reasons given above and have acquired a separate status in the art as shown by their different classification, restriction for examination purposes as indicated is proper.

During a telephone conversation with Darryl Mexic on February 4 a provisional election was made without traverse to prosecute the invention I, claims 1-7 and 21

Affirmation of this election must be made by applicant in replying to this Office action.

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Claims 8-20 and 22-25 withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

Claim Objections

2. Claims 1-7 and 21 are objected to because of the following informalities: a recording medium is used for a paper a substrate or a sheet not for a memory, so please change "a recording medium" to something that stands for memory. Appropriate correction is required.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in-

(1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effect under this subsection of a national application published under section 122(b) only if the international application designating the United States was published under Article 21(2)(a) of such treaty in the English language; or
(2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that a patent shall not be deemed filed in the United States for the purposes of this subsection based on the filing of an international application filed under the treaty defined in section 351(a).

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3. Claims 1-4, 6-7 and 21 are rejected under 35 U.S.C. 102(e) as being anticipated by Shoki (USPN 6,360,174).

With respect to claims 1 and 21, Shoki discloses a color agent amount recording apparatus recording an amount of a print coloring agent comprising:

- An information obtaining portion obtaining information on an amount of the printing coloring agent not uses in actual printing (Column 4: line 45-46)
- An information writing portion onto a recording medium the information on the amount obtained by the information obtaining portion (Column 7: line 43-46))

With respect to claim 2, Shoki discloses the recording medium is attached to a cartridge containing the printing color agent (Column7: line 38-39).

With respect to claim 3, Shoki discloses the printing coloring agent is ink (Column 4: lien 1-4)

With respect to claim 4, Shoki discloses the amount not used in actual printing includes a residual amount of the printing coloring agent (Column4: line 55-60)

With respect to claim 6, Shoki discloses the information obtaining portion obtains the information on the amount not used in actual printing for each of the colors of the printing coloring agent (Column 4: line 28-34) and the information writing portion writes onto the recording medium the information of each of the colors obtained by the information obtaining portion (Column 5: line 66-67, Column 6: line 1-6)

With respect to claim 7, Shoki discloses the apparatus being a part of a printing apparatus carrying out printing with the printing coloring agent (Abstract).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Shoki (USPN 6,360,174) in view of Suzuki (USPN 6,334,658).

Shoki fails to teach the amount not used in actual printing includes an amount of the print coloring agent used when maintenance of printing mechanism is carried out.

Suzuki teaches if the ink consumed quality and calculated ink consumed quality is not equal that meant there are some clog nozzles and the maintenance operation is executed (Fig.9: element 5,9, Column 12: line 36-41).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the teaching of Shoki to have a additional step of the maintenance operation is executed if the ink consumed quality and calculated ink consumed quality is not equal that meant there are some clog nozzles as taught by Suzuki. The motivation to doing so is minimize executed maintenance operation therefore ink and printing time can be prevented from being wasted (Suzuki USPN 6,334,658, Column 2: line 49-53).

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Conclusion

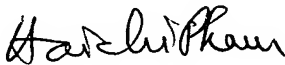
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ly T TRAN whose telephone number is 703-308-0752. The examiner can normally be reached on M-F (7:30am-5pm).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Barlow can be reached on 703-308-3126. The fax phone numbers for the organization where this application or proceeding is assigned are 703-308-7722 for regular communications and 703-308-7724 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0967.



February 11, 2003



HAI PHAM
PRIMARY EXAMINER